

IN THE ABSTRACT OF THE DISCLOSURE:

Please amend the abstract as follows:

ABSTRACT OF THE INVENTION

The present invention reduces, in a pattern inspection apparatus for comparing images of corresponding areas of two patterns, which are formed so as to be identical, so as to judge that a non-coincident part of the images is a defect, the influence of unevenness in brightness of patterns caused by a difference of thickness or the like and realizes is reduced, whereby highly sensitive pattern inspection is realized. In addition, the present invention realizes high-speed pattern inspection can be carried out without requiring changing an image comparison algorithm. In other words, in the present invention, For this purpose, the pattern inspection apparatus for comparing images of corresponding areas of two patterns, which are formed so as to be identical, to judge that a non-coincident part of the images is a defect includes means for performing operates to perform comparison processing of images in parallel in plural areas. Further, the pattern inspection apparatus includes means for converting operates to convert gradation of an image signal among compared images by using different plural processing units such that, even in the case in which a difference of brightness occurs in an identical pattern among images, a defect can be detected correctly.